

CLAIMS

1. A system for localizing a zone in space in relation to a predetermined point on a surface, wherein the surface is divided into nine zones of first rank obtained by dividing the surface into three parts in two different directions, a predetermined respective number from 1 to 9 is attributed to each of the zones of first rank, each zone of rank n , n being a whole number greater than or equal to 1, is divided successively into zones of rank $n+1$, a predetermined respective number from 1 to 9 being attributed to each of the zones of rank $n+1$ of a zone of inferior rank n , and a zone of rank n is position referenced by a zone reference sequence having n digits containing the number of said zone, the respective numbers of all of the zones of inferior rank, 1 to $n-1$, in which said zone is located, comprising:

means for determining the position reference sequence of a zone of rank n in which is located a zone to be localized in the surface, n being the maximum value such that the surface of the zone to be localized is included in said zone of rank n , and

means for transmitting and/or receiving and/or displaying and/or using such a position referencing sequence.

2. The system according to claim 1, wherein the surface is a surface of circular form, and is divided in advance into six equal sectors, nine zones of first rank being obtained for each sector by dividing the sector into three equal sectors and by two circles centered on the center of the surface, each zone of rank n being divided successively in the same manner into zones of rank $n+1$ in three sectors and by two circles centered on the center of the circular surface.

3. The system according to claim 2, wherein zone division circles have radii selected such that the zones of rank n have the same surface.

4. The system according to claim 2, wherein zone division circles have radii selected such that the zones of rank n have a constant radial width.

5. The system according to claim 1, wherein the surface is an essentially spherical surface, and the zone to be localized is position referenced in relation to a predetermined meridian of the spherical surface, the spherical surface having been previously divided into two hemispherical zones by a radial plane passing through a meridian selected as reference, the nine zones of first rank being obtained by dividing each hemispherical zone into three spherical sectors of identical preference by two radial planes each including a respective meridian, and each of the three spherical sectors by two planes perpendicular to the radial planes each including a respective parallel.

6. The system according to claim 5, wherein the spherical surface is the surface of a terrestrial globe.

7. The system according to claim 5 or 6, characterized in that in order to localize a zone in space, this system comprises means for determining a cone in which is located said zone in space, this cone having for its center the center of the spherical surface and for directrix curve the contour of said zones of rank n , n being the maximum value such that the zone to be localized is included in said cone.

8. The system according to claim 5, further comprising means for associating with all fixed or mobile elements in relation to the sphere the position referencing sequence of the zone of rank n in which said element is located.

9. The system according to claim 5, further comprising means for converting a position referencing system into at least two coordinates respectively according to a meridian and a parallel of the spherical surface, in relation to a point selected as origin and vice versa.

10. The system according to claim 5, further comprising at least one device comprising reception means for receiving localization signals, calculation means for determining a position reference sequence of a zone of rank n in which the device is located, the rank n being selected to correspond to the precision of the localization signals.

11. The system according to claim 10, wherein the localization signals are transmitted by satellites in orbit around a terrestrial globe.

12. The system according to claim 10, wherein said device is a cellular telephone network terminal comprising a multiplicity of local retransmission relays designed to serve a respective cell, each local relay transmitting as a localization signal a position referencing sequence for a zone of rank n , the rank of which is greater than or equal to the maximum value such that the cell served by said local relay is included in said zone, the terminal comprising means for displaying the position referencing sequence received.

13. The system according to claim 5, further comprising a geographic map showing said division of a terrestrial globe into zones of rank n , and indicating the position referencing sequences associated with said zones, the value of rank n being selected to be adapted to the scale of the map.

14. The system according to claims 1, further comprising a tool designed to be pointed at a point and means for pointing the tool in a zone determined by said position referencing sequence.

15. The system according to claim 1, wherein the surface in which a zone is to be localized is a digital image constituted by pixels, and cutting the image into zones is adapted to the size and number of pixels of the image.

16. The system according to claim 1, further comprising a calculator adapted to the conversion of numbers of base 10 to base 9 and vice versa.

17. A method of geographically localizing a zone of a terrestrial globe in relation to a predetermined meridian of the terrestrial globe, comprising:

dividing the terrestrial globe into two hemispherical zones with a radial plane passing through the meridian,

dividing the surface of each hemispherical zone into zones of rank n obtained by dividing successively each zone of inferior rank $n-1$ into three substantially identical spherical sectors by two radial planes each including a respective meridian, and each of three spherical sectors by two planes perpendicular to the radial planes each including a respective parallel, n being a whole number equal to or greater than 1,

attributing a predetermined respective number from 1 to 9 to each of the zones of rank n in each zone of inferior rank $n-1$,

determining the position of the zone to be localized by associating the respective numbers of zones of rank 1 to n , and a respective sign indicating the hemispherical zone in which is located the zone to be localized, to obtain a position referencing sequence of this zone, and

transmitting and/or receiving and/or displaying and/or using such a position referencing sequence.

18. A computer program stored on a medium for operation on a computer system comprising:

code enabling enclosure of a zone of a plane or space and successive division of sides thereof into 3 and automatic numbering of the divisions by 3 of the sides as well as interior zones that it delimits, and

code enabling calculations to be performed in base 9 and to automatically convert decimal data.

19. A computer program stored on a medium for operation on a computer system comprising code which:

divides the terrestrial globe into two hemispherical zones with a radial plane passing through the meridian,

divides the surface of each hemispherical zone into zones of rank n obtained by dividing successively each zone of inferior rank $n-1$ into three substantially identical spherical sectors by two radial planes each including a respective meridian, and each of three spherical sectors by two planes perpendicular to the radial planes each including a respective parallel, n being a whole number equal to or greater than 1,

attributes a predetermined respective number from 1 to 9 to each of the zones of rank n in each zone of inferior rank $n-1$,

determines the position of the zone to be localized by associating the respective numbers of zones of rank 1 to n , and a respective sign indicating the hemispherical zone in which is located the zone to be localized, to obtain a position referencing sequence of this zone, and

transmits and/or receives and/or displays and/or uses such a position referencing sequence.

20. A fixed or mobile geographic positioning device comprising a computer program according to claim 19.